MoVeo Videoscope

A New Generation of Mobile Videoscope Systems

STORZ
KARL STORZ — ENDOSKOPE
INDUSTRIAL GROUP

MoVeo Videoscope

The new MoVeo videoscope from KARL STORZ offers a fully integrated display, LED light source, and intuitive operating software, providing the user optimal mobility with a class-leading tip angulation.

Ergonomically designed to fit properly into the hand, it can be used for long periods with no operator fatigue.

The MoVeo videoscope is engineered and built for the direct and remote visual inspection of complex technical systems like turbines, rotating machinery and bearings without the need for time-consuming disassembly or causing any damage to the object inspected.

Introducing the MoVeo videoscope into a maintenance programme will reduce downtime to a minimum and increase the accuracy of planned replacement, overhaul or repair.

The design enables easy handling and great flexibility so that generating detailed images is straightforward. The complete system, and the tungsten-braided sheath in particular, has been designed to meet the demands of industrial applications. The 4-way deflection and the precise angulation of the sheath of up to +/- 150° ensure reliable and effective visual inspection. The user has the option of choosing between a videoscope with a sheath diameter of 4 mm or even 6 mm, each in various working lengths of up to 6 m. Various interchangeable lenses with integrated twin safety threads are available.

MoVeo functions on both mains and internal batteries, making it suitable for stationary and mobile operation. The MoVeo videoscope can operate for up to 3 hours on the rechargeable lithium-ion battery.

In addition to the basic equipment, the exchangeable batteries allow for extended remote operation.

Documentation is a fully integrated feature and the MoVeo unit enables images to be captured and previewed at the touch of a button. Images and videos are saved in standard JPEG/ASF formats and can be easily exported via the inbuilt SD card or USB cable to any standard PC for further processing if required.

Additional features include image rotation, auto off, digital zoom, image and video text annotation. A comparative measurement function is also integrated to enable estimations of defects to be made.

The MoVeo system comes complete with a transportation case that also serves as a working platform, ensuring the user has everything to hand.

MoVeo Videoscope in Detail

- Ergonomic handle design for both right- and left-handed users
- Designed for use worldwide
- Extensive connectivity:
  - SD card
  - Mini-USB
  - Video connection to external monitor
- Universal light source connection allows more powerful variants to be used when required

Large, high-resolution 5" true color
LCD color monitor
with impact protection

Image and video recordings
with or without text annotation

Quick access function keys

- High-resolution color video sensor
- Precise and extreme 4-way deflection (4x 150°)
- Interchangeable lens with safety thread and locking mechanism
- Lateral (90°) and 0° near-field interchangeable lens (optional)

- Comparative measurement function
- Simple, intuitive menus including multi-lingual user guidance
- Exchangeable lithium-ion high-performance batteries for mobile applications (up to 3 hours)

Multifunctional System Case

The MoVeo multifunction transportation case was designed with the end user in mind.

The system case ensures safe transport and handling during day-to-day industrial routine. In addition to the basic equipment, the multifunctional case offers sufficient storage space for accessories. Accessories are neatly stowed away and are ready to hand at any time. In addition, the case offers enough room for a multifunctional tripod, a rigid protective sheath, interchangable lenses and a carrying strap. Thanks to the detachable cover, the case can easily be converted into a practical workstation.

The optional multifunctional tripod with a holder for the videoscope improves working ergonomics. The tripod can either be fixed directly inside the case workstation or placed in the direct vicinity of the object to be inspected using the reliable clamp fixture. The MoVeo holder is designed in such a way that the videoscope can be easily positioned and handling is fully supported.

The case is extremely sturdy and suitable for transportation as air cargo or check-in flight luggage. It is also possible to secure the contents with a TSA lock (optional).

Accessories for the Multifunctional System Case

80603 **Multipurpose Stand,** for stable mounting of endoscopes and cameras, consisting of:
Articulated stand with a joint in the center and ball joints at both ends, equipped with a mounting plate for holding a camera or endoscope grip, total length approx. 50 cm. The stand can be moved in any direction and can be locked in any position required using a central fixation screw.

80600 H **Tension Rod with V Guide,** for mounting a VIDEOSCOPE to Multipurpose Stands 80600 and 80603

VOX00 M **MoVeo VIDEOSCOPE Holder,**
with tripod socket to screw in Multipurpose Stand 80603

MoVeo Videoscope

81301001-415 **MoVeo VIDEOSCOPE 1.5 m x diameter 4 mm, Set,** length 1.5 m, sheath outer diameter 4 mm, direction of view 0°, angle of view 70°, depth of field 15 mm to infinity, tungsten carbide sheath, 4-way deflection 150°, lens with safety thread, ergonomic control unit with 5" LCD display unit and Li-ion battery, SD memory card 2 GB and adjustable LED light source incl. Li-ion battery,

including:
MoVeo VIDEOSCOPE 1.5 m x diameter 4 mm
Power Supply, for MoVeo VIDEOSCOPE
LED Light Source, adjustable
NP 700 Batteries, ≥650 mAh for LED light source
Charger Unit, for NP 700 batteries
Lithium-ion Battery, for MoVeo 5" LCD display unit
Charger Unit, for Lithium-ion Battery 81302030
Mini-USB Cable 1.1
Composite Video Cable
Adhesive Label, MoVeo labeling 230 x 100 mm
User Manual, for MoVeo VIDEOSCOPE
Carrying Case, for MoVeo VIDEOSCOPE

81301001-403 **Same,** sheath length 3 m

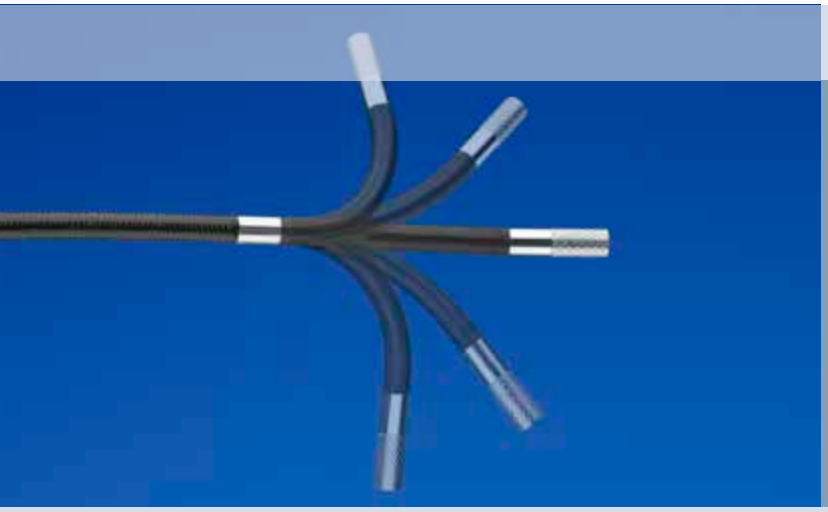
81301001-615 **MoVeo VIDEOSCOPE Set 1.5 m x diameter 6 mm,** length 1.5 m, sheath outer diameter 6 mm, direction of view 0°, angle of view 70°, depth of field 15 mm to infinity, tungsten carbide sheath, 4-way deflection 150°, lens with safety thread, ergonomic control unit with 5" LCD display unit and Li-ion battery, SD memory card 2 GB and adjustable LED light source incl. Li-ion battery

including:
MoVeo VIDEOSCOPE 1.5 m x diameter 6 mm
Power Supply, for MoVeo VIDEOSCOPE
LED Light Source, adjustable
NP 700 Batteries, ≥650 mAh for LED light source
Charger Unit, for NP 700 batteries
Lithium-ion Battery, for MoVeo 5" LCD display unit
Charger Unit, for Lithium-ion Battery 81302030
Mini-USB Cable 1.1
Composite Video Cable
Adhesive Label, MoVeo labeling 230 x 100 mm
User Manual, for MoVeo VIDEOSCOPE
Carrying Case, for MoVeo VIDEOSCOPE

81301001-603 **Same,** sheath length 3 m

81301001-606 **Same,** sheath length 6 m, 4-way deflection 95°

Accessories MoVeo Videoscope



VG0470WDE **Interchangeable Lens 90°,**
for MoVeo VIDEOSCOPEs VG04015AE and VG04030AE with outer diameter 4 mm,
Direction of view 90°, field of view 70°,
Depth of field 12 mm to infinity

VG0670WDE **Interchangeable Lens 90°,**
for MoVeo VIDEOSCOPEs VG06015AE, VG06030AE and VG06060AE with outer diameter 6 mm,
Direction of view 90°, field of view 70°,
Depth of field 12 mm to infinity

VG0470WAE **Interchangeable Lens 0°,**
for MoVeo VIDEOSCOPEs VG04015AE and VG04030AE with outer diameter 4 mm,
Direction of view 0°, field of view 70°,
Depth of field 4 mm - 22 mm

VG0670WAE **Interchangeable Lens 0°,**
for MoVeo VIDEOSCOPEs VG06015AE, VG06030AE and VG06060AE with outer diameter 6 mm,
Direction of view 0°, field of view 70°,
Depth of field: 4 mm - 22 mm

V04003AQ

Rigid Sleeve,
for 3.8 mm and 4 mm VIDEOSCOPES,
working length 300 mm,
outer diameter 5.25 mm

V06003AQ

Rigid Sleeve,
for 6.3 mm and 6 mm VIDEOSCOPES,
working length 300 mm,
outer diameter 7.5 mm

80404GM

Carrying Strap, for MoVeo VIDEOSCOPES,
length approx. 1.20 m, adjustable,
including:
Carrying Belt
Fixation Screw
Hex Key

495 G

Screw Base,
for KARL STORZ fiber optic light cable

Specifications

MoVeo Videoscope – Color Camera Chip and Interchangeable Lenses

Product Features	VG04015AE	VG04030AE	VG06015AE	VG06030AE	VG06060AE
Color camera sensor technology	CMOS	CMOS	CMOS	CMOS	CMOS
Color system with automatic white balance	PAL/NTSC	PAL/NTSC	PAL/NTSC	PAL/NTSC	PAL/NTSC
Exposure	2 Lux / F 3.4	2 Lux / F 3.4	2 Lux / F 3.4	2 Lux / F 3.4	2 Lux / F 3.4
Direction of view	0°, direct view	0°, direct view	0°, direct view	0°, direct view	0°, direct view
Field of view	70°	70°	70°	70°	70°
Depth of field	15 mm - ∞	15 mm - ∞	15 mm - ∞	15 mm - ∞	15 mm - ∞
Distal tip outer diameter	4 mm	4 mm	6 mm	6 mm	6 mm
Length of rigid tip	14 mm	14 mm	18.3 mm	18.3 mm	18.3 mm
Coding:	yes	yes	yes	yes	yes
90° interchangeable lens					
Art. no.	VG0470WDE	VG0470WDE	VG0670WDE	VG0670WDE	VG0670WDE
Direction of view	90°, lateral view	90°, lateral view	90°, lateral view	90°, lateral view	90°, lateral view
Field of view	70°	70°	70°	70°	70°
Depth of field	12 mm - ∞	12 mm - ∞	12 mm - ∞	12 mm - ∞	12 mm - ∞
Distal tip outer diameter	4 mm	4 mm	6 mm	6 mm	6 mm
Length of rigid tip	18.7 mm	18.7 mm	24 mm	24 mm	24 mm
Coding:	yes	yes	yes	yes	yes
0° near-field interchangeable lens					
Art. no.	VG0470WAE	VG0470WAE	VG0670WAE	VG0670WAE	VG0670WAE
Direction of view	0°, direct view	0°, direct view	0°, direct view	0°, direct view	0°, direct view
Field of view	70°	70°	70°	70°	70°
Depth of field	4 mm – 22 mm	4 mm – 22 mm	4 mm – 22 mm	4 mm – 22 mm	4 mm – 22 mm
Distal tip outer diameter	4 mm	4 mm	6 mm	6 mm	6 mm
Length of rigid tip	16 mm	16 mm	20.3 mm	20.3 mm	20.3 mm
Coding:	yes	yes	yes	yes	yes

MoVeo Videoscope Sheath

Product Features	VG04015AE	VG04030AE	VG06015AE	VG06030AE	VG06060AE
Sheath construction	Tungsten carbide (Wolfram) outer coating with 4 layers				
Deflection with a straight sheath	4-way with locking mechanism. left: 150°, right: 150°, up: 150°, down: 150°				4-way with locking mechanism. left: 95°, right: 95°, up: 95°, down: 95°
Sheath length	1.5 m	3 m	1.5 m	3 m	6 m
Minimum bend radius	17 mm	17 mm	21 mm	21 mm	21 mm
Sheath outer diameter	4 mm	4 mm	6 mm	6 mm	6 mm
Operating conditions sheath incl. distal tip	Operating temperature: • in air : -25° C to 80° C • in water : 10° C bis 30° C air pressure • in air: normal air pressure (1.013 hPa) • in water: 1.013 to 1.368 hPa humidity: • 5-95% relative humidity				
Fluid resistance of the distal tip	Inserter, no problems in the event of contact with conventional machine oil, light oil or 5% saline solution, SKYDROL in particular excluded. As a general principle, KARL STORZ provides no guarantee without a specific material compatibility test.				
Watertightness* of the distal tip	Inserter, watertight construction of the distal tip. With a lens installed, can come into contact with water.				

MoVeo Videoscope System Unit

Product Features	VG04015AE	VG04030AE	VG06015AE	VG06030AE	VG06060AE
Monitor	screen size and type: 5" TFT LCD, resolution: 640 x 480, aspect ratio: 4:3, rubber coating for shock absorption				
Operating interface	on/off, menu control, image and video capture, infinitely variable mechanical light intensity control				
Quick access interface	image capture and video capture function				
Function – digital zoom	up to 2x				
Function – image rotation	yes, optional				
Function – mirroring	yes, optional				
Function – time/date	yes, optional				
Function – data export	yes, via USB or SD card				
Function – auto-off option	yes, optional				
Function – external on-screen display	yes, optional				
Function – text annotation	yes, optional				
Function – comparative measurement	yes, optional				
Function – menu language selection	choose from English, German, French, Spanish, Italian, Japanese, Russian, Portuguese, Dutch, Chinese, Polish, Czech, Croatian, Greek, Danish, Swedish, Finnish, Arabic, Korean, Hindi, etc.				
Function – display setting	manual / factory settings				
Light source	detachable LED light source, average service life 25,000 hours, IPX7				
Connection for external light sources	yes, according to the manufacturer's recommendation				
Memory device	SD memory card, 32 mm × 24 mm × 2.1 mm, pins: 9, ≤4Gb, up to 32 Gb where necessary				
Image capture format (resolution)	JPEG (640 X 480)				
Video capture format (resolution)	ASF (640 X 480)				
Playback of captured videos and images	playback supported on Windows Media Player; compatible codex must be installed				
Input/output connections	memory interface: 1x SD, USB interface: 1x mini-USB 1.1./USB, image signal output: 1x AV, mains power supply: 1x 5 V DC				
Power supply – MoVeo videoscope	exchangeable lithium-ion polymer battery, rated voltage: 3.7 VDC, capacity: 3900 mAh average operating time: approx. 180 minutes, average charging time: approx. 180 minutes, exchangeable: yes mains adaptor for main unit : input voltage: 100 to 240 V AC, frequency: 50/60 Hz, rated voltage: 5 V DC battery charger for additional battery: input voltage: 100 to 240 V AC, frequency: 50/60 Hz, rated voltage: 4.2 V DC				
Power supply – LED light source	exchangeable BTR-700 lithium-ion battery, rated voltage: 3.7 V, capacity: 650 mAh operating time with battery at 100% light intensity: 45 minutes (with a new battery) average charging time: approx. 90 minutes battery charger: input voltage: 100 to 240 V AC, frequency: 50/60 Hz rated voltage: 4.2V DC				
Operating conditions - other parts	operating temperature: • in air : -10° C to 45° C (battery) 0° C to 40° C (mains)		air pressure : • in air: normal air pressure (1.013 hPa)		humidity: • 5-95% relative humidity
Storage and transport conditions	storage temperature: -15° C to +50° C, 5-95% relative humidity, air pressure 500 hPa – 1080 hPa.				
Dimensions	approx. 150 (w) x 290 (h) x 60 (d) mm (without inserter and cable and light source)				
Weight of the entire system including batteries and light source	approx. 930 g	approx. 1000 g	approx. 950 g	approx. 1000 g	approx. 1300 g
Multifunctional case – dimensions and weight	dimensions 617 (w) x 487 (h) x 191 (d) mm weight approx. 7.1 kg (model with all standard components stowed away: 9.3 kg)				
Certified to	CE	CE	CE	CE	CE

Degrees of angulation with ±10% tolerance.

KARL STORZ **Industrial Group**

Measurement Systems and Documentation*

Videoscopes*

Portable Systems*

Product groups

Flexoscopes*

Light Sources*

Borescopes*

At KARL STORZ, we are constantly advancing all of our products. For that reason, please understand that changes may be made to the scope of supply, design, equipment, and technology. Therefore, the information, illustrations, and descriptions contained herein cannot be made the basis for any claims whatsoever.

* For an up-to-date overview of the individual product groups, please refer to the product brochures of the KARL STORZ Industrial Group.

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